Environmental Assessment Checklist

Project Name: Whitewood Pre-Commercial Thin
Proposed Implementation Date: July 2019
Proponent: Swan Unit, Northwest Land Office, Montana DNRC
County: Lake

Type and Purpose of Action

Description of Proposed Action:

The Swan Unit of the Montana Department of Natural Resources and Conservation (DNRC) is proposing the Whitewood Pre-Commercial Thin. The project is in the Woodward and Whitetail Creek drainages in Section 11, Township 23 North, Range 18 West and Section 27, Township 24 North, Range 18 West, approximately 9 miles southwest of Swan Lake, MT. (refer to Attachments A-**1** vicinity map and A-**2** project map)

Beneficiary	Legal Description	Total Acres	Treated Acres
Common Schools	**Sec. 11, T24N, R17W Sec. 27, T24N, R18W**	**1280**	**96**
Public Buildings			
MSU 2nd Grant			
MSU Morrill			
Eastern College-MSU/Western College-U of M			
Montana Tech			
University of Montana			
School for the Deaf and Blind			
Pine Hills School			
Veterans Home			
Public Land Trust			
Acquired Land			

Objectives of the project include:

- Reduce stocking levels and tree competition within the project area.
- Increase growth and vigor of residual trees to accelerate growth to a marketable size class.
- Decrease the threat of disease and insects.
- Promote species diversity.

Proposed activities include:

Action	Quantity
Proposed Harvest Activities	# Acres
Clearcut	0
Seed Tree	0
Shelterwood	0
Selection	0
Commercial Thinning	0
Salvage	0
Total Treatment Acres	
Proposed Forest Improvement Treatment	# Acres
Pre-commercial Thinning	96
Planting	0.0
Proposed Road Activities	# Miles
New permanent road construction	0.0
New temporary road construction	0.0
Road maintenance	0.0
Road reconstruction	0.0
Road abandoned	0.0
Road reclaimed	0.0
Other Activities	

Duration of Activities:	Summer/Fall 2019
Implementation Period:	June 16th – Nov. 1st

The lands involved in this proposed project are held in trust by the State of Montana. (Enabling Act of February 22, 1889; 1972 Montana Constitution, Article X, Section 11). The Board of Land Commissioners and the DNRC are required by law to administer these trust lands to produce the largest measure of reasonable and legitimate return over the long run for the beneficiary institutions (Section 77-1-202, MCA).

The DNRC would manage lands involved in this project in accordance with:

- The State Forest Land Management Plan (DNRC 1996),
- Administrative Rules for Forest Management (ARM 36.11.401 through 471),
- The Montana DNRC Forested State Trust Lands Habitat Conservation Plan (HCP) (DNRC 2010
- and all other applicable state and federal laws.

Project Development

SCOPING:

- DATE:
  - March 5th, 2019
- PUBLIC SCOPED:
  - The scoping notice was posted on the DNRC Website: http://dnrc.mt.gov/public-interest/public-notices
  - Statewide Scoping List
  - Swan River State Forest Scoping List
- AGENCIES SCOPED:
  - FWP, USFS, CSKT
- COMMENTS RECEIVED:
  - How many: No comments were received.
  - Concerns: N/A
  - Results (how were concerns addressed): N/A

DNRC specialists were consulted, including: Leah Breidinger, Tony Nelson, and Tim Spoelma.

Internal and external issues and concerns were incorporated into project planning and design and will be implemented in associated contracts.

OTHER GOVERNMENTAL AGENCIES WITH JURISDICTION, LIST OF PERMITS NEEDED: *(Conservation Easements, Army Corps of Engineers, road use permits, etc.)*

- **United States Fish & Wildlife Service-** DNRC is managing the habitats of threatened and endangered species on this project by implementing the Montana DNRC Forested Trust Lands HCP and the associated Incidental Take Permit that was issued by the United States Fish & Wildlife Service (USFWS) in February of 2012 under Section 10 of the Endangered Species Act. The HCP identifies specific conservation strategies for managing the habitats of grizzly bear, Canada lynx, and three fish species: bull trout, westslope cutthroat trout, and Columbia redband trout. This project complies with the HCP. The HCP can be found at http://dnrc.mt.gov/divisions/trust/forest-management/hcp.

- **Montana Department of Environmental Quality (DEQ)-** DNRC is classified as a major open burner by DEQ and is issued a permit from DEQ to conduct burning activities on state lands managed by DNRC. As a major open-burning permit holder, DNRC agrees to comply with the limitations and conditions of the permit.

- **Montana/Idaho Airshed Group-** The DNRC is a member of the Montana/Idaho Airshed Group which was formed to minimize or prevent smoke impacts while using fire to accomplish land management objectives and/or fuel hazard reduction (Montana/Idaho Airshed Group 2006). The Group determines the delineation of airsheds and impact zones throughout Idaho and Montana. Airsheds describe those geographical areas that have similar atmospheric conditions, while impact zones describe any area in Montana

or Idaho that the Group deems smoke sensitive and/or having an existing air quality problem (Montana/Idaho Airshed Group 2006). As a member of the Airshed Group, DNRC agrees to burn only on days approved for good smoke dispersion as determined by the Smoke Management Unit.

- **Montana Department of Fish, Wildlife and Parks (DFWP)-** A Stream Protection Act Permit (124 Permit) is required from DFWP for activities that may affect the natural shape and form of a stream's channel, banks, or tributaries. Such activities include:

ALTERNATIVES CONSIDERED:

No-Action Alternative: Under this alternative, no stands would be thinned. Stands would continue at the current growth rates and vigor classes. Radial growth per tree would not increase, resulting in delay in reaching marketable size classes. Natural mortality due to competition from overstocking would eventually occur, increasing growth rates on the remaining trees.

Limited growth, due to competition for light and nutrients, would make the trees more susceptible to insect and disease attacks. Insect and disease attacks typically occur in larger sized trees and in overstocked stands, resulting in a delay of reaching merchantable size.

Action Alternative: A Pre-Commercial thin of 96 acres would occur in the Whitetail and Woodward Creek Drainages on the Swan River State Forest focusing on the project objectives of reducing stocking levels. Thinning would reduce sapling and pole size timber from approximately 2000 trees per acres to 220 to 300 trees per acre at a 12-14 foot spacing. Species targeted for retention are Western white pine, western larch, and Douglas-fir.

Impacts on the Physical Environment

Evaluation of the impacts on the No-Action and Action Alternatives including **direct, secondary, and cumulative** impacts on the Physical Environment.

VEGETATION:

Vegetation Existing Conditions: EXISTING ENVIRONMENT

Unit 11-01: Habitat type: *Abies grandis/Clintonia uniflora (h.t) – Xerophyllm tenax phase* (grand fir/queencup beadlily-beargrass phase) This unit primarily consists of grand fir as well as western white pine, western larch, Douglas-fir, lodgepole pine, and Engelmann spruce. This unit has two stories. The understory consists of 1,600 sapling size trees per acre averaging 2-3" DBH and 10-40 feet tall. Groups of residual mature trees are scattered throughout the unit left from previous harvest activity. The upper story is mixed conifer averaging 6-12" DBH with an average height of 60 ft.

Unit 27-01: Habitat type: *Thuja plicata/Clintonia uniflora (h.t.) – Clintonia uniflora phase* (western redcedar/queencup beadlilly – queencup beadlily). This unit is overstocked with western larch saplings averaging 2,500 trees per acre. Douglas-fir, grand fir, Engelmann spruce, and Western redcedar are also present in this size class. Stand structure is a result of

clear cut and seed tree silvicultural prescriptions. Saplings are 1-3 inches in diameter and 5-25 feet tall. There is a minor component of mature seed trees, primarily Western larch and Douglas-fir left from the past harvest entries which have been retained for a natural seed source.

The long-term plan for both stands is to manage for a desired cover type of mixed conifer in stand 11-01 and western larch/ Douglas-fir in stand 27-01. Other management considerations are continued forest health, and timber production. The stands will be harvested in the future upon reaching merchantable size.

Unit elevations vary from 3,600 to 4,400 feet. The slope is flat to 60 percent with east, south, and southwest aspects.

Vegetation	Impact												Can Impact Be Mitigated?	Comment Number
	Direct				Secondary				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High		
No-Action														
Noxious Weeds		**X**				**X**				**X**				
Rare Plants	**X**				**X**				**X**					
Vegetative community	**X**				**X**				**X**					
Old Growth	**X**				**X**				**X**					
Action														
Noxious Weeds		**X**				**X**				**X**			**Y**	**1**
Rare Plants	**X**				**X**				**X**					
Vegetative community		**X**				**X**				**X**			**Y**	**2,3**
Old Growth	**X**				**X**				**X**					

Comments:

1. Existing weeds are present in areas of the project area mainly along roads and disturbed areas. Increased activity in the project area could lead to an increase the risk of spreading noxious weeds.
2. The direct impact would be the removal of sapling and pole size trees from the treatment areas designated within the project area. Stocking levels within these stands would be reduced to 220-300 trees per acre. Trees under four feet in height are exempt from thinning and would not be impacted. Pre-Commercial thinning would accelerate the effects of natural mortality resulting in: reduced competition, increased tree growth and vigor, resistance to insect and disease, and historic stand compositions.
3. Cut trees left on site would provide nutrient recycling within the treatment area. Thinning slash would also increase the amount of dead down-woody debris contributing to the amount of available fuel within the unit.

Vegetation Mitigations:

1. Equipment will be clean prior to entering the project area to minimize the spread of noxious weeds. The project area will be monitored for noxious weeds after implementation and herbicide may be applied if needed.

2. The phenotypically superior trees of preferred species will be retained as crop trees to preserve quality traits among leave trees.
3. Thinning slash accumulations will not exceed 24 inches in depth within the interior of the units. Slash will be lopped and scatter to meet this requirement.

SOIL DISTURBANCE AND PRODUCTIVITY:

Soil Disturbance and Productivity Existing Conditions: Timber harvesting in the proposed project area has been ongoing since the 1960s. Approximately 14.8% of soils are impacted from past entries where ground-based yarding was done.

Soil Disturbance and Productivity	Impact												Can Impact Be Mitigated?	Comment Number
	Direct				Secondary				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High		
No-Action														
Physical Disturbance (Compaction and Displacement)	**X**				**X**				**X**					
Erosion	**X**				**X**				**X**					
Nutrient Cycling	**X**				**X**				**X**					
Slope Stability	**X**				**X**				**X**					
Soil Productivity	**X**				**X**				**X**					
Action														
Physical Disturbance (Compaction and Displacement)	**X**				**X**				**X**					
Erosion	**X**				**X**				**X**					
Nutrient Cycling	**X**				**X**				**X**					
Slope Stability	**X**				**X**				**X**					
Soil Productivity	**X**				**x**				**x**					

Comments: Hand felling of pre-commercially thinned trees would have no adverse impacts to soil physical properties or soil productivity.

Soil Mitigations: Operate on soils that are dry, frozen or snow-covered.

WATER QUALITY AND QUANTITY:

Water Quality and Quantity Existing Conditions: No adverse impacts to water quality or water quantity were identified from past management activities in the proposed project area.

Water Quality & Quantity	Impact												Can Impact Be Mitigated?	Comment Number
	Direct				Secondary				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High		
No-Action														
Water Quality	**X**				**x**				**X**					
Water Quantity	**X**				**X**				**X**					
Action														
Water Quality	**X**				**X**				**X**					
Water Quantity	**x**				**X**				**X**					

Comments: Removal of pre-commercially thinned trees would have no measurable impacts to water quality or quantity. Hand falling and staying out of SMZs would generate no impacts to water quality. Thinning improves growth rates of remaining trees leading to no net change in water quantity.

Water Quality & Quantity Mitigations: No thinning activities in SMZ. Streamside Management Zone Rules require all brush and sub-merchantable trees be left in the SMZ.

FISHERIES:

Fisheries Existing Conditions: Woodward Creek flows through a portion of the project area and supports a population of bull trout and westslope cutthroat trout. Existing conditions of fish habitat is fully supporting aquatic life.

No-Action: No direct or indirect impacts would occur to affected fish species or affected fisheries resources beyond those described in Fisheries Existing Conditions. Cumulative effects (other related past and present factors; other future, related actions; and any impacts described in Fisheries Existing Conditions) would continue to occur.

Action Alternative (see Fisheries table below):

Fisheries	Impact												Can Impact Be Mitigated?	Comment Number
	Direct				Secondary				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High		
No-Action														
Sediment	**X**				**X**				**X**					
Flow Regimes	**X**				**X**				**X**					
Woody Debris	**X**				**X**				**X**					
Stream Shading	**X**				**X**				**X**					
Stream Temperature	**X**				**X**				**X**					
Connectivity	**X**				**X**				**X**					
Populations	**X**				**X**				**X**					
Action														
Sediment	**X**				**X**				**X**					

Fisheries	Impact												Can Impact Be Mitigated?	Comment Number
	Direct				Secondary				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High		
Flow Regimes	**X**				**X**				**X**					
Woody Debris	**X**				**X**				**X**					
Stream Shading	**X**				**X**				**X**					
Stream Temperature	**X**				**X**				**X**					
Connectivity	**x**				**X**				**X**					
Populations	**X**				**X**				**x**					

Comments: Proposed pre-commercial thinning would have no measurable effects to fish habitat or populations since all activities would be hand-felled and outside of SMZ. All RMZ rules would also be applied where needed.

Fisheries Mitigations: No thinning activities in SMZ. Streamside Management Zone Rules require all brush and sub-merchantable trees be left in the SMZ.

WILDLIFE:

No-Action: None of the proposed activities would occur. In the short-term, no changes to the amounts, quality, or spatial arrangement of dense sapling and pole timber stands would occur. In the long-term and in the absence of natural disturbance, habitat availability would increase for species preferring dense timber stands.

Action Alternative (see Wildlife table below):

Wildlife	Impact												Can Impact be Mitigated?	Comment Number
	Direct				Secondary				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High		
Threatened and Endangered Species														
Grizzly bear *(Ursus arctos)* Habitat: Recovery areas, security from human activity		**X**				**X**				**X**			**Y**	**WI-1**
Canada lynx (*Felix lynx)* Habitat: Subalpine fir habitat types, dense sapling, old forest, deep snow zone		**X**				**X**				**X**			**Y**	**WI-2**
Sensitive Species														
Bald eagle *(Haliaeetus leucocephalus)* Habitat: Late-successional forest	**X**				**X**				**X**					

Wildlife	Impact												Can Impact be Mitigated?	Comment Number
	Direct				Secondary				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High		
within 1 mile of open water														
Black-backed woodpecker *(Picoides arcticus)* Habitat: Mature to old burned or beetle-infested forest	**X**				**X**				**X**					
Coeur d'Alene salamander *(Plethodon idahoensis)* Habitat: Waterfall spray zones, talus near cascading streams	**X**				**X**				**X**					
Columbian sharp-tailed grouse *(Tympanuchus Phasianellus columbianus)* Habitat: Grassland, shrubland, riparian, agriculture	**X**				**X**				**X**					
Common loon *(Gavia immer)* Habitat: Cold mountain lakes, nest in emergent vegetation	**X**				**X**				**X**					
Fisher *(Martes pennanti)* Habitat: Dense mature to old forest less than 6,000 feet in elevation and riparian		**X**				**X**			**X**				**Y**	**WI-3**
Flammulated owl *(Otus flammeolus)* Habitat: Late-successional ponderosa pine and Douglas-fir forest	**X**				**X**				**X**					
Gray Wolf *(Canis lupus)* Habitat: Ample big game populations, security from human activities	**X**				**X**				**X**					

Wildlife	Impact												Can Impact be Mitigated?	Comment Number
	Direct				Secondary				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High		
Harlequin duck *(Histrionicus histrionicus)* Habitat: White-water streams, boulder and cobble substrates	**X**				**X**				**X**					
Northern bog lemming *(Synaptomys borealis)* Habitat: Sphagnum meadows, bogs, fens with thick moss mats	**X**				**X**				**X**					
Peregrine falcon *(Falco peregrinus)* Habitat: Cliff features near open foraging areas and/or wetlands	**X**				**X**				**X**					
Pileated woodpecker *(Dryocopus pileatus)* Habitat: Late-successional ponderosa pine and larch-fir forest	**X**				**X**				**X**					
Townsend's big-eared bat *(Plecotus townsendii)* Habitat: Caves, caverns, old mines	**X**				**X**				**X**					
Wolverine *(Gulo gulo)* Habitat: Alpine tundra and high-elevation forests that maintain snow into late spring	**X**				**X**				**X**					
Big Game Species														
Elk	**X**				**X**				**X**					
Whitetail	**X**				**X**				**X**					
Mule Deer	**X**				**X**				**X**					
Other	**X**				**X**				**X**					

Comments:

WI-1 Grizzly bear - The project area is located in the Porcupine Woodward Subunit of recovery zone habitat associated with the Northern Continental Divide Ecosystem (*USFWS 1993*). The proposed activities would focus on thinning crop trees to an average of 12-14-foot spacing favoring western larch and Douglas-fir for retention. Visual screening along open roads would be retained. Additionally, trees <4 feet tall, western white pine, and brush and hardwoods that do not compete with crop trees would be retained. The proposed activities would occur periodically over a 3-year period and could cause some displacement of bears. Motorized activities would be restricted from April 1-June 15 to protect bears when they may be nutritionally stressed after hibernation. Considering that visual screening along open roads and within the units would be retained, minor adverse direct, indirect, or cumulative effects affects to grizzly bears would be anticipated.

WI-2 Canada lynx - The proposed activities would occur in 98 acres of suitable lynx habitat that contains a high density of saplings (>1,500 TPA) and are classified as suitable for summer foraging. These acres would remain suitable for lynx use post-thinning, but the density of saplings would be too low to continue providing summer foraging habitat. After thinning, these stands would be categorized as other suitable habitat, which contains minimal vegetation attributes necessary for lynx use (*USFWS and DNRC 2010*). Considering that sapling density would be reduced, these stands would likely support fewer snowshoe hares, the primary prey of lynx. To reduce adverse effect to lynx, one patch totaling 24 acres of lynx summer forage habitat would be retained unthinned until the stands reaches sawtimber size class (≥9 inches dbh). Additionally, all shade tolerant trees that do not interfere with desired crop trees would be retained. Connectivity of lynx habitat would not be affected by the proposed activities considering that none of the thinned stands would become unsuitable for lynx use according to habitat standards.

WI-3 Fisher – The proposed activities would occur in 36 acres of fisher habitat; however, these acres contains a low density of mature (≥9 inches diameter) trees and thus are likely only capable of providing minimally suitable fisher habitat. Riparian habitat and mature trees would not be affected. To reduce potential adverse effects on fishers, at least 2 large snags and 2 large snag recruitment trees per acre (>21 inches dbh) would be retained (*ARM 36.11.411*).

Wildlife Mitigations:

- If a threatened or endangered species is encountered, consult a DNRC biologist immediately. Similarly, if undocumented nesting raptors or wolf dens are encountered within one mile of the Project Area contact a DNRC biologist.
- Prohibit contractors and purchasers conducting contract operations from carrying firearms while on duty as per *ARM 36.11.444(2)* and *GB-PR2* (*USFWS and DNRC 2010*).
- Contractors will adhere to food storage and sanitation requirements as described in the sale contract. Ensure that all attractants such as food, garbage, and petroleum products are stored in a bear-resistant manner.
- Prohibit motorized activities from April 1- June 15 in all units.
- Retain shade-tolerant trees (grand fir, subalpine fir, and spruce) <4 feet tall that do not pose competition risks to crop trees as per LY-HB4 (*USFWS and DNRC 2010*).

- Retain visual screening between open roads and thinning units to increase security for grizzly bears and big game.
- Restrict public access at all times on any restricted roads that are opened for the pre-commercial thin.
- Retain all snags and consider creating scattered brush piles to increase habitat quality for snowshoe hares.

Literature Cited:

USFWS. 1993. Grizzly bear recovery plan. Missoula, MT.

USFWS and DNRC. 2010. Montana Department of Natural Resources and Conservation Forested Trust Lands Habitat Conservation Plan, Final Environmental Impact Statement, Volumes I and II. U.S. Department of Interior, Fish and Wildlife Service, Region 6, Denver, Colorado, and Montana Department of Natural Resources and Conservation, Missoula, MT. September 2010.

AIR QUALITY:

Air Quality	Impact												Can Impact Be Mitigated?	Comment Number
	Direct				Secondary				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High		
No-Action														
Smoke	**X**				**X**				**X**					
Dust	**X**				**X**				**X**					
Action														
Smoke	**X**				**X**				**X**					
Dust	**X**				**X**				**X**					

ARCHAEOLOGICAL SITES / AESTHETICS / DEMANDS ON ENVIRONMENTAL RESOURCES:

Will Alternative result in potential impacts to:	Impact												Can Impact Be Mitigated?	Comment Number
	Direct				Secondary				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High		
No-Action														
Historical or Archaeological Sites	**X**				**X**				**X**					
Aesthetics	**X**				**X**				**X**					
Demands on Environmental Resources of Land, Water, or Energy	**X**				**X**				**X**					
Action														
Historical or Archaeological Sites	**X**				**X**				**X**					**2**

Will Alternative result in potential impacts to:	Impact												Can Impact Be Mitigated?	Comment Number
	Direct				Secondary				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High		
Aesthetics		**X**			**X**				**X**				**Y**	**1**
Demands on Environmental Resources of Land, Water, or Energy	**X**				**X**				**X**					

Comments:

1. Lop and scatter slashing is noticeable for 1-2 years after thinning.

2. A Class I (literature review) level review was conducted by the DNRC staff archaeologist for the area of potential effect (APE). This entailed inspection of project maps, DNRC's sites/site leads database, land use records, General Land Office Survey Plats, and control cards. The Class I search revealed that no cultural or paleontological resources have been identified in the APE. Because the area of potential effect on state land has experienced extensive and multiple timber harvest operations, no additional archaeological investigative work will be conducted in response to this proposed development. However, if previously unknown cultural or paleontological materials are identified during project related activities, all work will cease until a professional assessment of such resources can be made.

Mitigations:

1. Lop and scatter slash will be limited to 24-inch maximum depth within the unit and within 18-inches or ground near open roads. Slash will usually settle after 1-2 years of snowloading and decomposition, becoming less noticeable.

OTHER ENVIRONMENTAL DOCUMENTS PERTINENT TO THE AREA: *List other studies, plans or projects on this tract. Determine cumulative impacts likely to occur as a result of current private, state or federal actions in the analysis area, and from future proposed state actions in the analysis area that are under MEPA review (scoped) or permitting review by any state agency.*

- **Wood Lion EIS**

Impacts on the Human Population

Evaluation of the impacts on the proposed action including **direct, secondary, and cumulative** impacts on the Human Population.

Will Alternative result in potential impacts to:	Impact												Can Impact Be Mitigated?	Comment Number
	Direct				Secondary				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High		
No-Action														
Health and Human Safety	**X**				**X**				**X**					

Will Alternative result in potential impacts to:	Impact												Can Impact Be Mitigated?	Comment Number
	Direct				Secondary				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High		
Industrial, Commercial and Agricultural Activities and Production	**X**				**X**				**X**					
Quantity and Distribution of Employment	**X**				**X**				**X**					
Local Tax Base and Tax Revenues	**X**				**X**				**X**					
Demand for Government Services	**X**				**X**				**X**					
Access To and Quality of Recreational and Wilderness Activities	**X**				**X**				**X**					
Density and Distribution of population and housing	**X**				**X**				**X**					
Social Structures and Mores	**X**				**X**				**X**					
Cultural Uniqueness and Diversity	**X**				**X**				**X**					
Action														
Health and Human Safety	**X**				**X**				**X**					
Industrial, Commercial and Agricultural Activities and Production	**X**				**X**				**X**					
Quantity and Distribution of Employment		**X**			**X**				**X**				**N/A**	**1**
Local Tax Base and Tax Revenues	**X**				**X**				**X**					
Demand for Government Services	**X**				**X**				**X**					
Access To and Quality of Recreational and Wilderness Activities	**X**				**X**				**X**					
Density and Distribution of population and housing	**X**				**X**				**X**					
Social Structures and Mores	**X**				**X**				**X**					
Cultural Uniqueness and Diversity	**X**				**X**				**X**					

Comments:

1. The project scale would not have a large effect on local employment. It would however provide a private contractor with 1-5 months of employment for him/herself and his/her employees.

Mitigations:

Locally Adopted Environmental Plans and Goals: *List State, County, City, USFS, BLM, Tribal, and other zoning or management plans, and identify how they would affect this project.*

- None

Other Appropriate Social and Economic Circumstances:

No Action: The No Action alternative would not generate any return to the trust at this time.

Action: The proposed pre-commercial thinning would initially generate cost to the trust. This project would be an investment in stand productivity. This increased productivity shall result in an increase in volume available at a later date.

References

DNRC 1996. State forest land management plan: final environmental impact statement (and appendixes). Montana Department of Natural Resources and Conservation, Forest Management Bureau, Missoula, Montana.

DNRC. 2010. Montana Department of Natural Resources and Conservation Forested State Trust Lands Habitat Conservation Plan: Final EIS, Volume II, Forest Management Bureau, Missoula, Montana.

Does the proposed action involve potential risks or adverse effects that are uncertain but extremely harmful if they were to occur?
NO

Does the proposed action have impacts that are individually minor, but cumulatively significant or potentially significant?
NO

Environmental Assessment Checklist Prepared By:

Name: Adam Blythe
Title: Management Forester
Date: 3/15/2019

Finding

Alternative Selected

Two alternatives are presented and fully analyzed in the CEA:

- The No-Action Alternative includes existing activities but does not include the proposed action to precommercial thin 96 acres.
- In addition to existing activities, the Action Alternative proposes 96 acres of precommercial thinning.

After reviewing the correspondence from the public and information presented in the CEA, I have selected the Action Alternative without additional modifications. I feel the Action Alternative best meets the purpose and need for action for the following reasons:

- The selected Action Alternative meets the type and purpose of action listed in this CEA.
- The analysis of identified issues did not reveal information to persuade DNRC, or myself, to choose the No-Action Alternative.
- The Action Alternative for this project meets all requirements of the Administrative Rules for Forest Management (*ARM 36.11.401* through *450*) and the HCP.
- The project area is located on DNRC-managed lands that are principally valuable for the timber that is on them (*77-1-402 MCA*). DNRC manages these lands according to the standards adopted by the Administrative Rules for Forest Management (*ARM 36.11.401* through *450*) and the philosophy within the SFLMP, which states:

  > *Our premise is that the best way to produce long-term income for the trust is to manage intensively for healthy and biologically diverse forests…in the future; timber management will continue to be our primary source of revenue and our primary tool for achieving biodiversity objectives.*

- The proposal provides a means to manage intensively for a healthy and biologically diverse forest by promoting stand vigor while limiting environmental impacts.

As mandated by State statute (*77-5-222 MCA*), the proposed precommercial thinning improves forest growth for improved future contribution to DNRC's sustained yield.

Significance of Potential Impacts

I find that the Action Alternative would not have significant impacts on the human environment
for the following reasons:

- The proposed precommercial thinning project conforms to the management philosophies of DNRC and follows existing laws, rules, policies, and standards applicable to this type of proposed action.
- The Action Alternative would not preclude analysis of future actions on state trust lands.
- Mitigations and specifications identified in the CEA would be implemented as prescribed.
- The proposed activities are similar to past projects on state trust lands using common practices

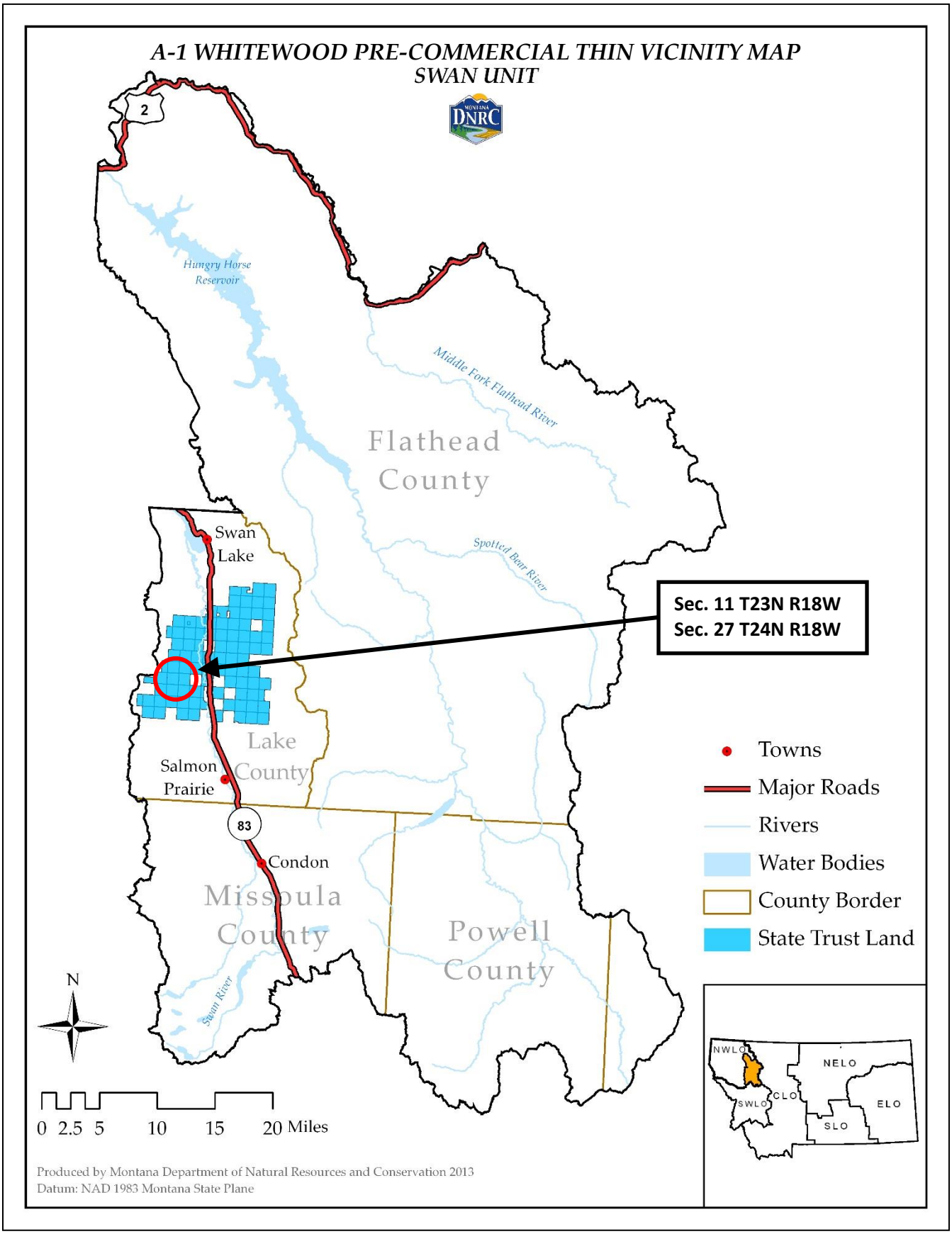
in the industry and would not be conducted on unique or fragile sites.

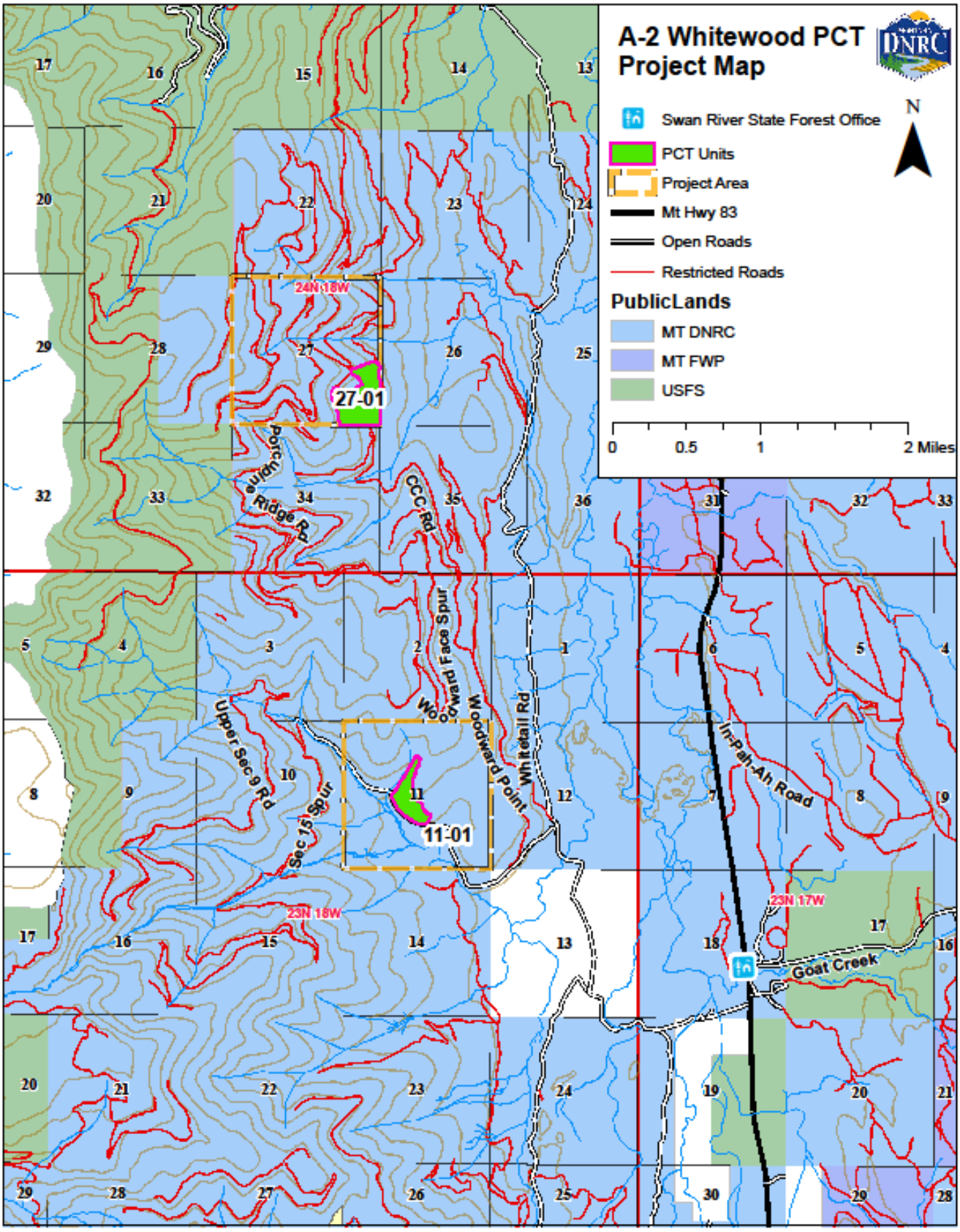
Need for Further Environmental Analysis

[ ]	EIS	[ ]	More Detailed EA	[X]	No Further Analysis

Environmental Assessment Checklist Approved By:

Name: Nick Aschenwald
Title: Unit Manager, Swan River State Forest
Date: 4/1/2019
Signature: /s/ Nick Aschenwald


A-1 WHITEWOOD PRE-COMMERCIAL THIN VICINITY MAP
SWAN UNIT
DNRC
2
Hungry Horse Reservoir
Middle Fork Flathead River
Flathead County
Spotted Bear River
Swan Lake
Sec. 11 T23N R18W
Sec. 27 T24N R18W
Lake County
Salmon Prairie
83
Condon
Missoula County
Powell County
Swan River
Towns
Major Roads
Rivers
Water Bodies
County Border
State Trust Land
N
0 2.5 5 10 15 20 Miles
NWLO
NELO
CLO
SWLO
ELO
SLO
Produced by Montana Department of Natural Resources and Conservation 2013
Datum: NAD 1983 Montana State Plane


A-2 Whitewood PCT
Project Map
DNRC
N
Swan River State Forest Office
PCT Units
Project Area
Mt Hwy 83
Open Roads
Restricted Roads
PublicLands
MT DNRC
MT FWP
USFS
0
0.5
1
2 Miles
24N 18W
27-01
11-01
23N 18W
23N 17W
Porcupine Ridge Rd
CCC Rd
Woodward Face Spur
Woodward Point
Whitetail Rd
Upper Sec 9 Rd
Sec 15 Spur
In-Pah-Ah Road
Goat Creek
A. Blythe: 02/14/2019